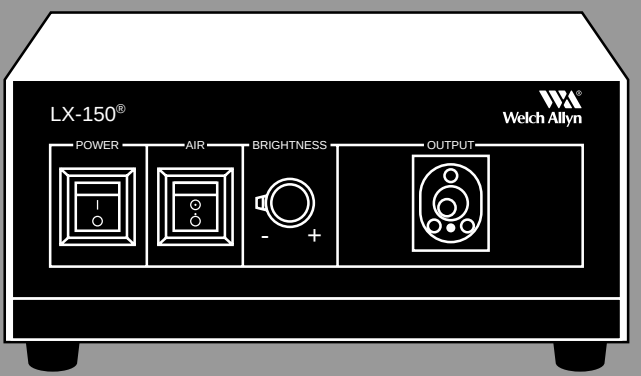
Light Source Menu
Service Manual

Welch Allyn

LX-150®
Light Source
(International)

Operating Instructions



Welch Allyn®

Thank you for purchasing the Welch Allyn LX-150® Light Source. The operating and maintenance instructions found in this manual should be followed to ensure many years of accurate and reliable service. Please read these instructions thoroughly before using your new LX-150 Light Source.

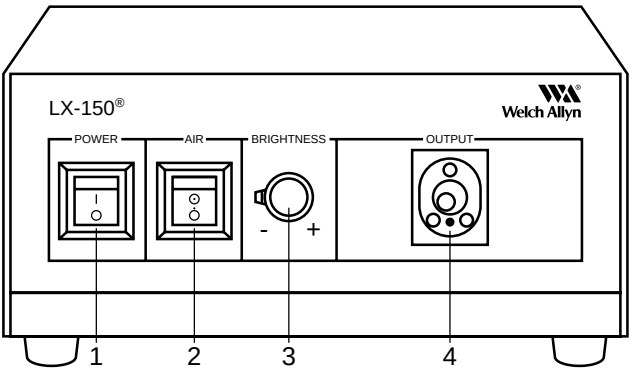
Warning

The user of this equipment should be thoroughly trained in the medical procedures appropriate to the instrumentation. Furthermore, time should be taken to read and understand these instructions before performing any procedures. Instructions for other equipment used in conjunction (e.g. electrosurgical generators, suction machines, etc.) should also be read and understood. Failure to do so may result in injury to the patient and/or damage to the instrument.

Specifications

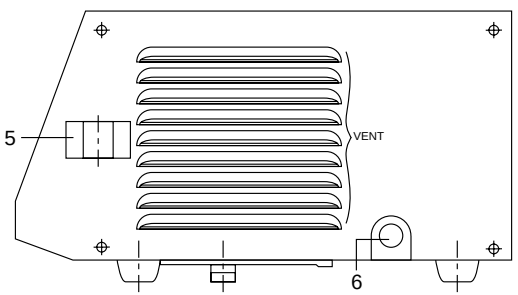
Illumination	Lamp Voltage	21 VAC
	Lamp Type	150w Halogen (#04050)
	Lamp Life	50 Hours
	Brightness Adjustment	Continuous Diaphragm
	Cooling Method	Forced Air
Air Feeding	Pump Type	Electromagnetic Vibrator
	Capacity	6.6 p.s.i. Max.
	Max. Flow Rate	7.2 L/Min.
	Control	Independent Air Switch
Dimensions	(W)11" x (H)5½" x (D)9½" (W)28cm x (H)14cm x (D)24cm	
Weight	17.5 lbs. (7.95kg)	
Supply Circuit	Voltage	220, 230, 240 VAC
	Frequency	50—60Hz
	Current	1A
	Fuse	T 1A, 250 V IEC 127/DIN 41662
	Classification	Class I. IEC type B
Ambient Temp	10—40°C	
Relative Humidity	30—85%	

Nomenclature

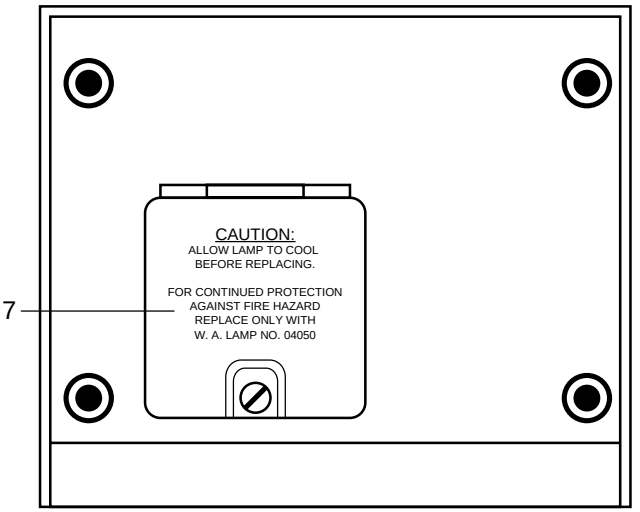


Front View

1. **Main Power Switch**—controls all power into light source. Without activation, all other controls will not function.
2. **Air Feed Switch**—activates flow of air at air output connector (on right side of box).
3. **Illumination Control**—controls intensity of light output at endoscope connector port.
4. **Endoscope Connector Port**—accepts endoscope connector terminal of endoscope to complete illumination pathway.
5. **Water Bottle Bracket**—couples water bottle to light source.
6. **Air Output Connector**—couples to air input hose on water bottle.
7. **Lamp Access Door**—opens to allow for lamp replacement.

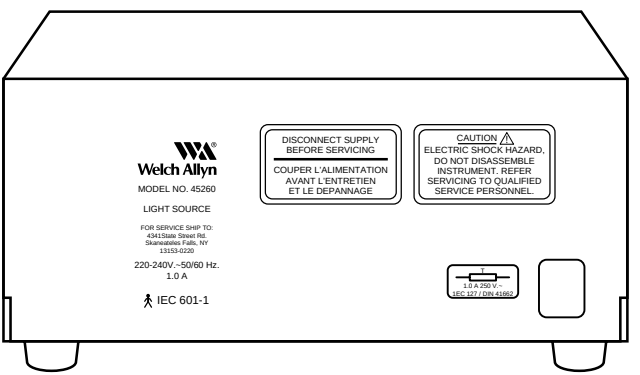


Right View



Bottom View

CAUTION: Lamp becomes extremely hot even after short periods of operation. Allow lamp ample time to cool prior to replacing.



Rear View

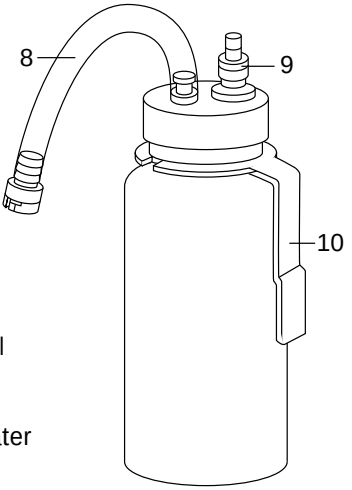
CAUTION: Electric shock hazard. Do not attempt to service unit. Return to an authorized Welch Allyn service center for repair.

WARNING: Disconnect power supply prior to replacing lamp.

: Degree of protection against electric shock, IEC type B.

Water Bottle

8. **Air Input Hose**—couples to light source air output connector.
9. **Air/Water Output**—couples to dual lumen air/water line of flexible sigmoidoscope (FX-100).
10. **Mounting Bracket**—couples to water bottle bracket on light source to support bottle.



Water Bottle

Prior to Initial Use

General Precautions

- The cabinet of this unit should always be grounded correctly and securely during use. Do not disable the line cord ground connection.
- LX-150® should not be used in the presence of any flammable gas.
- The LX-150 and connected endoscope should not be used with electrosurgical instruments that exceed safety leakage current or whose safety in linkage is not guaranteed.
- Immediately stop using the light source if liquid enters the cabinet.
- Do not look directly into endoscope connector port when it is emitting light.

Preparation for Use

- The light source should be set upon a firm, horizontal surface. Care must be exercised to keep both sides of the illuminator free of obstructions to permit efficient circulation of air.

Connection to Supply Source

- Check to verify that the power switch is OFF.
- Couple the supply cord to a hospital grade receptacle that meets the input ratings on the rating plate.

Connecting Endoscope

- Insert the endoscope connector terminal into the endoscope connector terminal port. (Note: Endoscope alignment pin should point toward the bottom of the light source).
- Push the terminal firmly into the port until it “clicks” into place.

Connecting Water Bottle

- Remove cap and fill the water bottle with clean tap water until ¾ full.
- Replace cap and tighten firmly.
- Hook water bottle to bracket on right side of light source. (Note: DO NOT attempt to fill water bottle while it is connected to light source.)
- Couple air output connector hose to air output connector on light source.
- Couple dual lumen air/water line to top of water bottle. Connect remaining fittings to corresponding air/water input connectors on endoscope.

Inspection

Prior to every examination, the equipment should be pre-tested following the procedures outlined below. If an abnormality is detected or suspected, contact Welch Allyn Customer Service for assistance.

Activating Light Source

- Switch power switch to “ON”.
- Set brightness knob midway between (+) and (-) settings.
- Check the distal tip of endoscope to verify that light is being emitted from distal light guides.
- Verify that internal cooling fan is operating by listening to whirring noise from light source.
- If unit does not power up, contact Welch Allyn Customer Service (315) 685-4560.
- If fan is activated but no light is emitted, lamp is defective or not properly seated. Refer to maintenance section for replacement procedure.

Adjusting Light Intensity

- Light emitted from the distal tip of the endoscope will increase as the brightness knob is rotated toward the (+) and conversely the intensity will diminish when rotated toward (-).

Air/Water Feed

- With power switch “ON”, turn on the air switch.
- Verify that air and water flow normally from distal tip of endoscope when corresponding valves are depressed.

NOTE: If air/water flow falls below normal, contact Welch Allyn Customer Service.

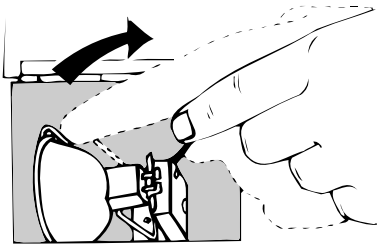
Storage

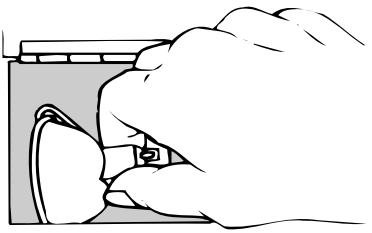
- Disconnect and empty the water bottle. Wash with mild soapy water and rinse.
- Disconnect power cord from receptacle.
- Wipe external surface of source and power cord with gauze moistened in alcohol.
- Store in a clean, dust-free environment at room temperature. Avoid direct sunlight and areas of high temperature/humidity.
- Do not wind power cord so tightly that it will crush, twist or bend.

Maintenance

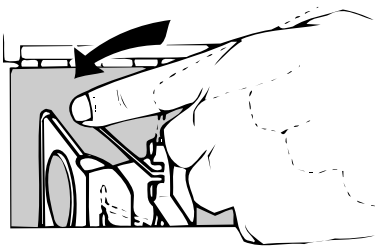
Lamp Replacement

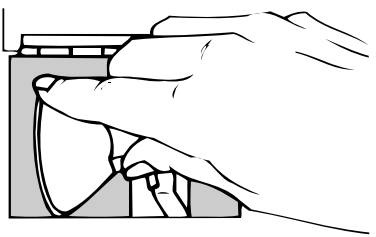
1. Turn power switch to “OFF” position and unplug power cord from receptacle.
2. Uncouple air input hose and remove water bottle from bracket.
3. Flip the light source 180° and place top face down on a horizontal surface.
4. Open lamp access door by inserting a coin in slot and turning release latch ¼ turn counterclockwise. (Note: before touching lamp, allow for sufficient time to cool.)
5. After lamp has cooled, pull the lamp holding lever toward the back of the unit until the lever reaches an almost vertical position.





6. Remove expired lamp from the lamp holder.
7. Prior to installing new lamp, remove protective cap.





8. Return the lever to its original position. The new lamp may then be inserted into the holder and advanced until it “snaps” into place. (Note: lamp must be fully inserted to assure proper contact).
9. Close and secure lamp access door.

(Note: Use replacement lamp #04050)

Service ⚠

For service, ship light source to:

Welch Allyn®

Welch Allyn, Inc.
4341 State Street Road
Skaneateles Falls, NY 13153-0220
Attention: Repair Department

Unit Conforms to
I.E.C. #601-1

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